

Claim Amendments

By this Amendment, Applicant has canceled claims 1-16 and added claims 17-36 to this application. New claim 17 includes subject matter contained in original claim 1, and new claim 28 includes subject matter contained in original claim 9. It is believed that the new claims specifically set forth each element of Applicant invention in full compliance with 35 U.S.C. §112, and define subject matter that is patentably distinguishable over the cited prior art.

New claim 17 of the present invention is distinguishable from Montalvo et al. for the reasons listed below:

(1) In claim 17, provided that a carrier frequency of the RF signal substantially equals to a predetermined value, the first programmable divisor of the first programmable divider as well as the corresponding local oscillating frequency of the local oscillating signal are capable of being programmable-controlled. Whereas, Montalvo et al. do not teach the first programmable divisor of the first programmable divider as well as the corresponding local oscillating frequency of the local oscillating signal are capable of being programmable-controlled as does the new claim 17 (neither col. 2, line 58-col. 5, line 40 nor other portions of Montalvo et al. mentioned that).

Since claim 17 is patentable over Montalvo et al., claims 18-27 that are dependent on claim 17 are accordingly patentable. Moreover, what Montalvo disclosed is the frequency dividers (fig. 1, items 82 and 89) at the input side of the phase detector, which are not equal to and cannot teach to add a frequency divider coupled between the synthesizer 40 and the mixer 84. Furthermore, the frequency dividers (fig. 1, items 82 and 89) shown by Montalvo cannot be applied to our invention since their input signals are modulated and these dividers will affect the modulation index, thus distort the spectrum of the input signals.

Claim 28 of the present invention is patentable over Montalvo et al. based on the same reasons set forth for claim 17. Claims 29-36 are patentable over Montalvo et al. as being dependent on claim 28.

It submitted that Montalvo et al. do not disclose, or suggest and modification of the specifically disclosed structures that would lead one having ordinary skill in

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the art to arrive at Applicant claimed structure. Thus, it is not believed that Montalvo et al. render obvious any of Applicant new claims under 35 U.S.C. §103.


Summary

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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